

# Preventing Metabolic Syndrome (Syndrome X)

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PTC Forum at Qarshi Library

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# Definition

An association between certain metabolic disorders and CVD or a cluster of metabolic risk factors that come together in a single individual

or



(High Insulin levels) an elevated fasting blood glucose or an elevated post meal glucose alone with at least 2 of other criteria

# Symptoms

Metabolic syndrome  
(Syndrome X)

- Central obesity
- High blood pressure
- High triglycerides
- Low HDL-cholesterol
- Insulin resistance



# What is it?

Any three of the following traits in the same individual

<b>Abdominal obesity</b>	Waist over 90 cm (36 inches) in men and over 80 cm (32 inches) in women
<b>Serum triglycerides</b>	150 mg/dl or above
<b>HDL cholesterol</b>	40mg/dl or lower in men and 50mg/dl or lower in women
<b>Blood pressure</b>	130/85 or more
<b>Fasting blood glucose</b>	110 mg/dl or above. (100 mg/dl in Pakistan)

# Risk Factors

## ***Factors***

Age

Race

Obesity

Diabetes

Other Diseases

## ***Details***

It increases with age, affecting less than 10% of people in their 20s and 40% in 60s

Hispanics and Asians are at greater risk than other races

BMI greater than 25  
Abdomen of apple shape rather than pear

Family history of Type-2 DM  
Gestational Diabetes

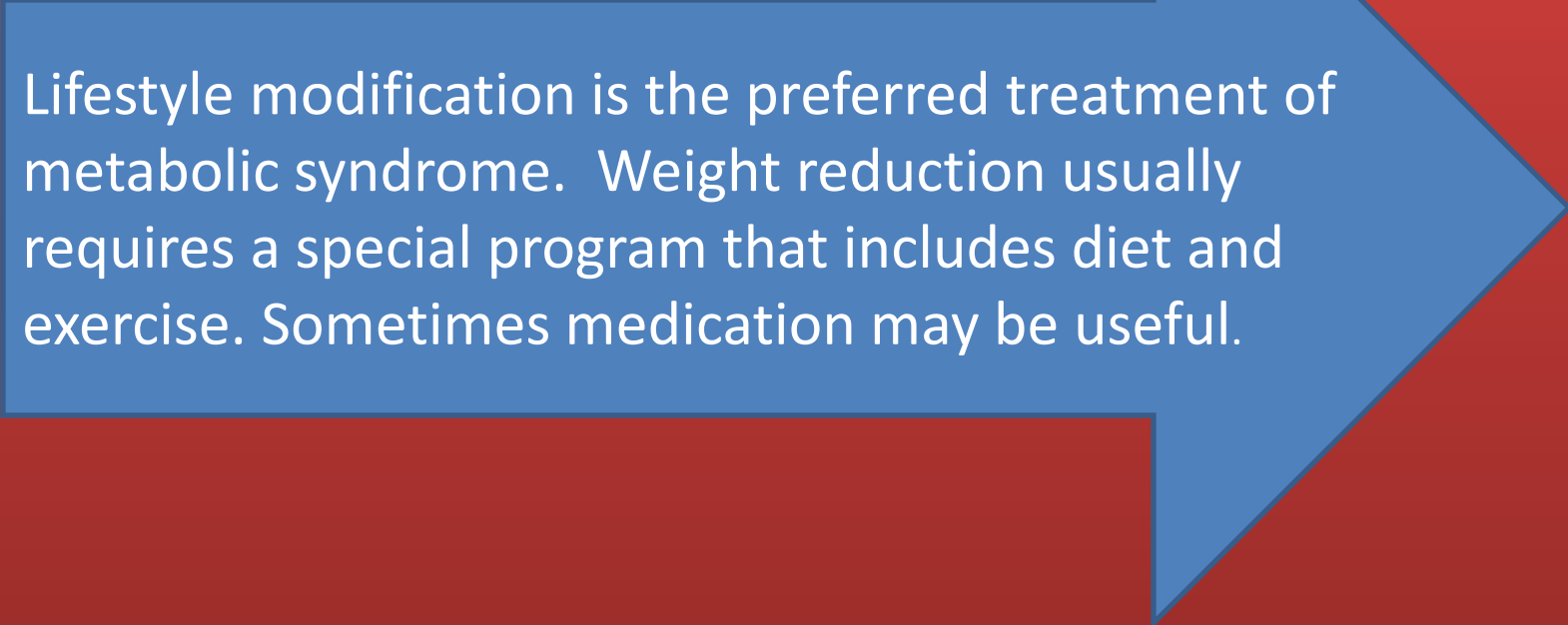
High blood pressure, cardiovascular disease  
or polycystic ovary syndrome

# Other Risk Factors

- Post-menopausal women
- Smoking
- Eating an excessively high carbohydrate diet
- Lack of activity (even without weight change)
- Fatty liver
- Obstructive sleep apnea

# Treatment

## Change Lifestyle



Lifestyle modification is the preferred treatment of metabolic syndrome. Weight reduction usually requires a special program that includes diet and exercise. Sometimes medication may be useful.

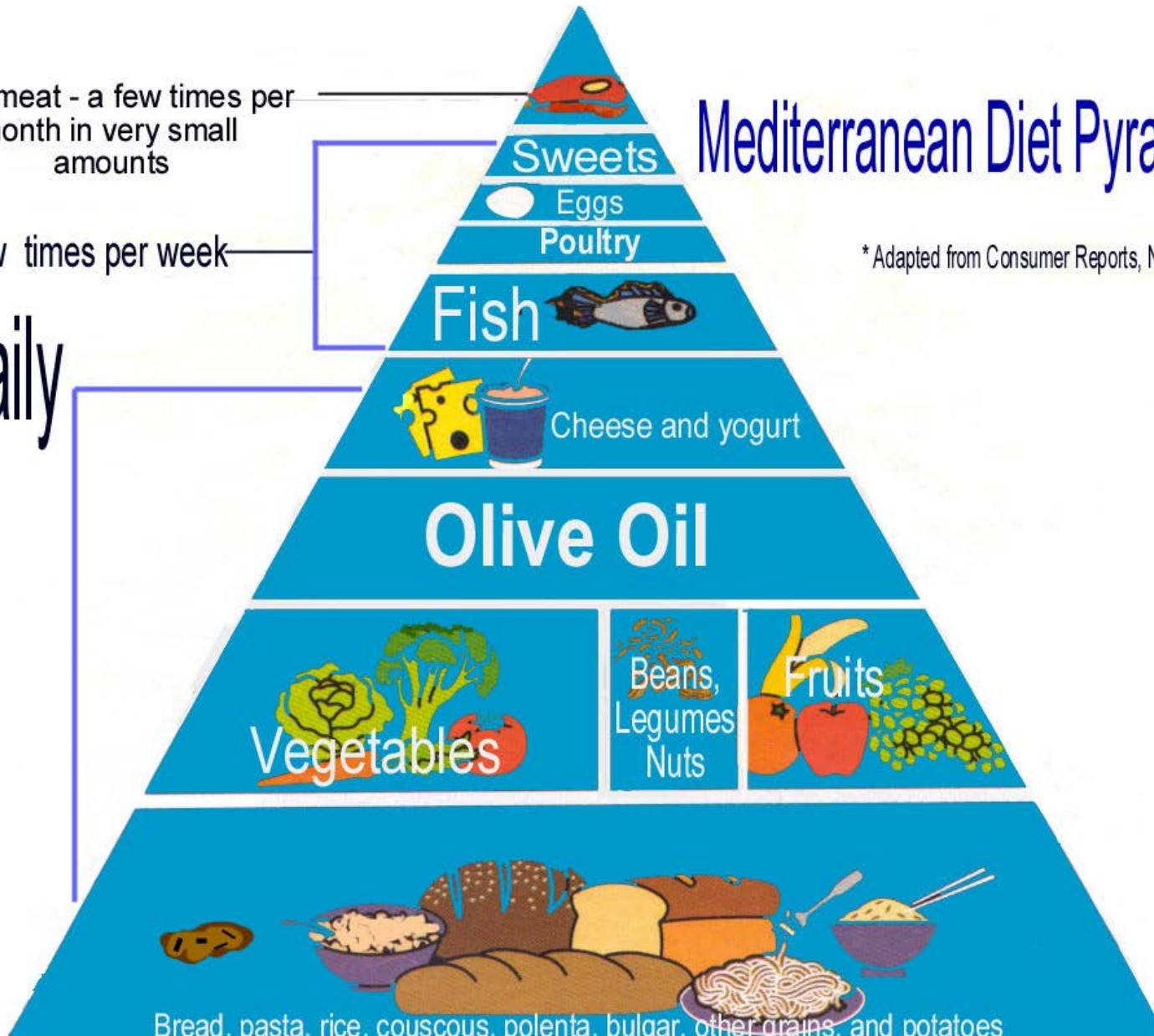
# Mediterranean Diet Pyramid\*

Red meat - a few times per month in very small amounts

A few times per week

Daily

\* Adapted from Consumer Reports, Nov'94





# Exercise



A sustainable exercise program, for example 30 minutes 5 days a week is reasonable to start, providing there is no medical contraindication. There is a beneficial effect of exercise on blood pressure, cholesterol levels, and insulin sensitivity, regardless of whether weight loss is achieved or not.

**Thank You**